

[4910-13-U]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [66 FR 8165 1/30/2001]

[Docket No. 2001-NE-03-AD; Amendment 39-12097; AD 2001-02-12]

RIN 2120-AA64

Airworthiness Directives; CFM International (CFMI) model CFM56-7B Turbofan Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that is applicable to CFMI model CFM56-7B turbofan engines. This action requires a one-time on-wing torque inspection, and torque if needed, of all the PS3 pressure line fittings to insure proper torque. This amendment is prompted by service events which resulted in two in-flight shutdowns (IFSD's) and an aborted takeoff due to the disconnection of one of the PS3 line fittings. The actions specified in this AD are intended to prevent air leakage from incorrectly torqued fittings of the PS3 line, which could result in engine power loss.

DATES: Effective February 14, 2001.

Comments for inclusion in the Rules Docket must be received on or before April 2, 2001.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 2001-NE-03-AD, 12 New England Executive Park, Burlington, MA 01803-5299. Comments may also be sent via the Internet using the following address: "9-ane-adcomment@faa.gov." Comments sent via the Internet must contain the docket number in the subject line.

FOR FURTHER INFORMATION CONTACT: Diane Cook, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone 781-238-7133, fax 781-238-7199.

SUPPLEMENTARY INFORMATION: The FAA has received reports of two in-flight shutdowns and one aborted take-off on three different Boeing 737NG airplanes powered by CFM56-7B turbofan engines. In all of these cases, the engine rolled back to idle speed and would not accelerate. The investigation revealed that the PS3 pressure line B-nut fitting at the 6 o'clock position had disconnected in two of these events and the PS3 pressure B-nut fitting at the combustion case port location had disconnected in the third event. An operator, involved in one of the IFSD events, completed on-wing torque inspections of the PS3 pressure line fittings of its CFMI CFM56-7B fleet. As a result of these inspections, one engine was found with a loose B-nut fitting at the 6 o'clock location and two engines were found with loose cap fittings at the 6 o'clock location. The two engines with loose caps were on the same airplane. The investigation also initiated PS3 pressure line fitting torque inspections on 10 engines that were on Boeing's flight line. These inspections revealed one engine with a loose B-nut fitting at the 6 o'clock position and one engine with a loose cap fitting at the 6 o'clock position. General Electric and SNECMA also inspected CFM56-7B engines that were in assembly. No loose fittings were found. The investigation to determine the cause of the loose PS3 pressure line fittings continues. Action to insure correct torque of these fittings on current production engines has been initiated by adding a new torque inspection requirement for the PS3 pressure line fittings at the end of the main engine assembly process. However, based on the inspection results indicated above, it has been determined that mandating action on in-service engines to ensure that the PS3 pressure line fittings are correctly torqued is required.

Requirements of This AD

Since an unsafe condition has been identified that is likely to exist or develop on other engines of the same type design, this AD is being issued to prevent air leakage from incorrectly torqued fittings of the PS3 line, which could result in engine power loss.

This AD requires a one-time, on-wing torque inspection of all the PS3 pressure line fittings to insure correct torque and, if necessary, torquing of those fittings to their correct value within 25 days after the effective date of this AD.

Immediate Adoption of This AD

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this rule by submitting such written data, views, or arguments, as they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified under the caption "ADDRESSES." All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this action must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2001-NE-03-AD." The postcard will be date stamped and returned to the commenter.

Regulatory Impact

This proposed rule does not have federalism implications, as defined in Executive Order No. 13132, because it would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Accordingly, the FAA has not consulted with state authorities prior to publication of this proposed rule.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and is not a "significant regulatory action" under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, may be obtained from the Rules Docket at the location provided under the caption "ADDRESSES."

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:
Authority: 49 U.S.C. 106(g), 40113, 44701.

§39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "av-info.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2001-02-12 CFM International: Amendment 39-12097. Docket No. 2001-NE-03-AD.

Applicability

This airworthiness directive (AD) is applicable to all CFM International (CFMI) model CFM56-7B turbofan engines except for engines with serial numbers DAC 876-747 and higher, and SAC 888-XXX and 889-XXX: 166-168, 172-173, 175-178, 180 and higher. These engines are installed on, but not limited to, Boeing 737NG airplanes.

Note 1: This AD applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (b) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance

Compliance with this AD is required within 25 days after the effective date of this AD, unless already done.

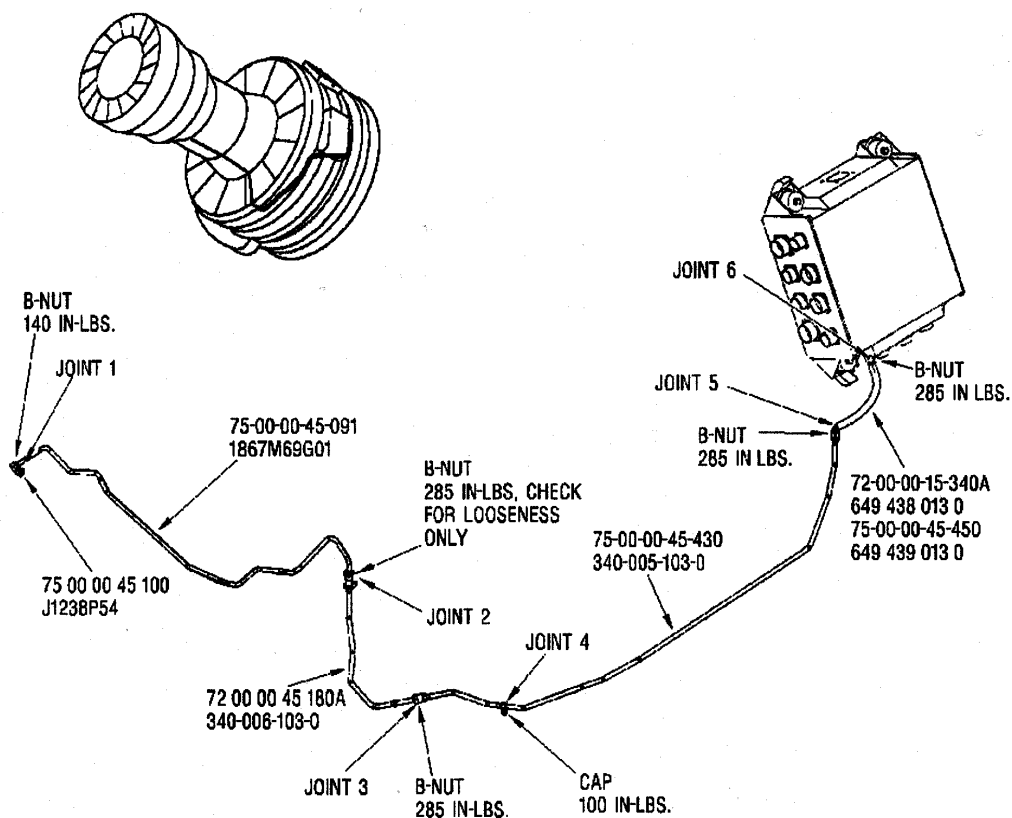
To prevent air leakage from incorrectly torqued fittings of the PS3 pressure line, which could result in engine power loss, do the following:

(a) Check for and apply the correct torque in the tightening direction of all PS3 pressure line fittings as identified in Figure 1 of this AD as Joint 1, Joint 2, Joint 3, Joint 4, Joint 5, and Joint 6 as follows:

Note 2: CFM International Service Bulletin, CFM56-7B S/B 75-0005, dated January 22, 2001, and the CFM56 Standard Practice Manual, CFMI-TP.SP.2, contain information on torquing the PS3 pressure line fittings, including supporting the pressure line from countertorque.

- (1) Torque Joint 1 to ensure a torque value of 140 inch-pounds.
- (2) Due to accessibility limitations, check Joint 2 for finger looseness, and only if loose, torque to a value of 285 inch-pounds.
- (3) Torque Joint 3, Joint 5, and Joint 6 to ensure a torque value of 285 inch-pounds.
- (4) Torque Joint 4 to ensure a torque value of 100 inch-pounds.

Figure 1. Torque Values for PS3 Line Fittings



Alternative Methods of Compliance

(b) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Engine Certification Office (ECO). Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, ECO.

Note 3: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the ECO.

Special Flight Permits

(c) Special flight permits may be issued in accordance with §§ 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the aircraft to a location where the requirements of this AD can be accomplished.

Effective Date of This AD

(d) This amendment becomes effective on February 14, 2001.

FOR FURTHER INFORMATION CONTACT: Diane Cook, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone 781-238-7133, fax 781-238-7199.

Issued in Burlington, Massachusetts, on January 23, 2001.

Thomas A. Boudreau, Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.